

## CLAIMS

1. A computer-implemented method for enabling the registration of dynamically generated code and corresponding unwind information, said method comprising:

creating a module which includes data related to said dynamically generated code and said corresponding unwind information; and

providing an application program interface which allows said data to be registered such that dynamic registration of said dynamically generated code and said corresponding unwind information is enabled.

2. The computer-implemented method for enabling the registration of dynamically generated code and corresponding unwind information as recited in Claim 1 wherein said module stores said data related to said dynamically generated code and said corresponding unwind information in a centralized location.

3. The computer-implemented method for enabling the registration of dynamically generated code and corresponding unwind information as recited in Claim 1 wherein said dynamically generated code is comprised of instrumented code.

4. The computer-implemented method for enabling the registration of dynamically generated code and corresponding unwind information as recited in Claim 1 wherein said application program interface allows said data to be registered by a dynamic loader.

5. A computer-readable medium embodying instructions that cause a computer to perform a method for enabling the registration of dynamically generated code and corresponding unwind information, said method comprising:

creating a module which includes data related to said dynamically generated code and said corresponding unwind information; and

providing an application program interface which allows said data to be registered such that dynamic registration of said dynamically generated code and said corresponding unwind information is enabled.

6. The computer-readable medium of Claim 5 wherein said module stores said data related to said dynamically generated code and said

corresponding unwind information in a centralized location.

7. The computer-readable medium of Claim 5 wherein said dynamically generated code is comprised of instrumented code.

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8. The computer-readable medium of Claim 5 wherein said application program interface allows said data to be registered by a dynamic loader.

10 9. An apparatus for reverting a process in an in-line instrumented state to an uninstrumented state, the apparatus comprising:

means for creating a module which includes data related to said dynamically generated code and said corresponding unwind information; and

15 means for providing an application program interface which allows said data to be registered such that dynamic registration of said dynamically generated code and said corresponding unwind information is enabled.

20 10. The apparatus of Claim 9 wherein said module stores said data related to said dynamically generated code and said corresponding unwind information in a centralized location.

25 11. The apparatus of Claim 9 wherein said dynamically generated code is comprised of instrumented code.

12. The apparatus of Claim 9 wherein said application program interface allows said data to be registered by a dynamic loader.

30 13. A computer-implemented method for registering dynamically generated code and corresponding unwind information, said method comprising:

creating a module which includes data related to dynamically generated code and corresponding unwind information;

35 providing an application program interface which allows said data to be registered such that dynamic registration of said dynamically generated code and said corresponding unwind information is enabled; and

coupling an application program interface invocation code sequence

to said dynamically generated code such that upon execution of said dynamically generated code, said application program interface invocation code sequence instructs said application program interface to facilitate registration of said data.

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14. The computer-implemented method for registering dynamically generated code and corresponding unwind information as recited in Claim 13 wherein said module stores said data related to said dynamically generated code and said corresponding unwind information in a centralized location.

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15. The computer-implemented method for registering dynamically generated code and corresponding unwind information as recited in Claim 13 wherein said dynamically generated code is comprised of instrumented code.

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16. The computer-implemented method for registering dynamically generated code and corresponding unwind information as recited in Claim 13 wherein said application program interface allows said data to be registered by a dynamic loader.

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17. The computer-implemented method for registering dynamically generated code and corresponding unwind information as recited in Claim 13 wherein said application program interface invocation code sequence is utilized by second a dynamically generated code.

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18. The computer-implemented method for registering dynamically generated code and corresponding unwind information as recited in Claim 13 further comprising:

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generating a second application program interface invocation code sequence for coupling to second dynamically generated code and corresponding unwind information such that upon execution of said second dynamically generated code, said second application program interface invocation code sequence instructs said application program interface to facilitate registration of data related to said second dynamically generated code and said corresponding unwind information.

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19. The computer-implemented method for registering dynamically generated code and corresponding unwind information as recited in

Claim 13 further comprising:

preventing registration of said module for a function called directly or indirectly via said application program interface.

5           20. The computer-implemented method for registering dynamically generated code and corresponding unwind information as recited in Claim 13 further comprising:

saving and restoring relevant machine context upon entry and exit of said application program interface invocation code sequence.

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21. A computer-readable medium embodying instructions that cause a computer to perform a method for registering dynamically generated code and corresponding unwind information, said method comprising:

15           creating a module which includes data related to dynamically generated code and corresponding unwind information;

providing an application program interface which allows said data to be registered such that dynamic registration of said dynamically generated code and said corresponding unwind information is enabled;

20           and

coupling an application program interface invocation code sequence to said dynamically generated code such that upon execution of said dynamically generated code, said application program interface invocation code sequence instructs said application program interface to facilitate registration of said data.

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22. The computer-readable medium of Claim 21 wherein said module stores said data related to said dynamically generated code and said corresponding unwind information in a centralized location.

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23. The computer-readable medium of Claim 21 wherein said dynamically generated code is comprised of instrumented code.

24. The computer-readable medium of Claim 21 wherein said application program interface allows said data to be registered by a dynamic loader.

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25. The computer-readable medium of Claim 21 wherein said application program interface invocation code sequence is utilized by a

second dynamically generated code.

26. The computer-readable medium of Claim 21 further comprising:

- 5       generating a second application program interface invocation code sequence for coupling to second dynamically generated code and corresponding unwind information such that upon execution of said second dynamically generated code, said second application program interface invocation code sequence instructs said application program interface to facilitate registration of data related to said second  
10       dynamically generated code and said corresponding unwind information.

27. The computer-readable medium of Claim 21 further comprising:

- 15       preventing registration of said module for a function called directly or indirectly via said application program interface.

28. The computer-readable medium of Claim 21 further comprising:

- 20       saving and restoring relevant machine context upon entry and exit of said application program interface invocation code sequence.

29. An apparatus for registering dynamically generated code and corresponding unwind information, said apparatus comprising:

- 25       means for creating a module which includes data related to dynamically generated code and corresponding unwind information;  
      means for providing an application program interface which allows said data to be registered such that dynamic registration of said dynamically generated code and said corresponding unwind information  
30       is enabled; and  
      means for coupling an application program interface invocation code sequence to said dynamically generated code such that upon execution of said dynamically generated code, said application program interface invocation code sequence instructs said application program  
35       interface to facilitate registration of said data.

30. The apparatus of Claim 29 wherein said module stores said data related to said dynamically generated code and said corresponding unwind information in a centralized location.

31. The apparatus of Claim 29 wherein said dynamically generated code is comprised of instrumented code.

5        32. The apparatus of Claim 29 wherein said application program interface allows said data to be registered by a dynamic loader.

10       33. The apparatus of Claim 29 wherein said application program interface invocation code sequence is utilized by a second dynamically generated code.

15       34. The apparatus of Claim 29 further comprising:  
means for generating a second application program interface invocation code sequence for coupling to second dynamically generated code and corresponding unwind information such that upon execution of said second dynamically generated code, said second application program interface invocation code sequence instructs said application program interface to facilitate registration of data related to said second dynamically generated code and said corresponding unwind information.

20       35. The apparatus of Claim 29 further comprising:  
means for preventing registration of said module for a function called directly or indirectly via said application program interface.

25       36. The apparatus of Claim 29 further comprising:  
means for saving and restoring relevant machine context upon entry and exit of said application program interface invocation code sequence.